

## Claims

What is claimed is:

- [c1] A method for a system having distributed collaborating components, comprising:  
restricting direct interaction between distributed collaborating components by introducing  
an application-independent interface between distributed collaborating  
components; and  
invoking a service from the application-independent interface in order to enable  
interaction between distributed collaborating components.
- [c2] The method of claim 1, wherein invoking a service from the application-independent  
interface comprises sending a usage specification to the application-independent  
interface.
- [c3] The method of claim 2, wherein the application-independent interface has a capability to  
interpret the usage specification at runtime.
- [c4] The method of claim 1, wherein invoking a service from the application-independent  
interface comprises sending a logic execution specification to the application-  
independent interface.
- [c5] The method of claim 4, wherein the application-independent interface has a capability to  
interpret the logic execution specification at runtime.
- [c6] A method for a distributed system having a client and a server, comprising:  
interposing a service layer between the client and the server, the service layer having a  
capability to interpret a specification from the client at runtime in order to enable  
interaction between the client and the server; and  
routing correspondence between the client and server through the service layer.
- [c7] The method of claim 6, wherein the specification comprises an attribute of an object on  
the server.

- [c8] The method of claim 7, further comprising:  
the service layer fetching data from the object based on the specification.
- [c9] The method of claim 8, wherein fetching data from the object comprises storing data  
fetched from the server in a proxy for the object.
- [c10] The method of claim 7, further comprising the service layer updating data in the object  
based on the specification.
- [c11] The method of claim 10, wherein updating data in the object comprises receiving data  
from the client and using data received from the client to modify the attribute of the  
object.
- [c12] The method of claim 6, wherein the specification comprises logic for invoking a method  
of an object on the server.
- [c13] The method of claim 12, wherein interpreting the specification comprises invoking the  
method of the object.
- [c14] The method of claim 6, wherein interposing the service layer between the client and the  
server comprises separating specification of usage of an object on the server from  
implementation of the client.
- [c15] The method of claim 14, wherein interposing a service layer between the client and the  
server further comprises separating specification of logic for invoking a method of an  
object on a server from implementation of the client.
- [c16] A computer-readable medium having recorded thereon instructions executable by a  
processor, the instructions for:  
receiving a specification from a client component; and  
interpreting the specification in order to enable interaction between the client component  
and a server component.

- [c17] The computer-readable medium of claim 16, wherein the specification comprises a usage of an object in the server component.
- [c18] The computer-readable medium of claim 17, further comprising:  
instructions for fetching data from the object based on the usage.
- [c19] The computer-readable medium of claim 17, further comprising:  
instructions for updating data in the object based on the usage.
- [c20] The computer-readable medium of claim 16, wherein the specification comprises logic for invoking a method of an object on the server.
- [c21] The computer-readable medium of claim 20, wherein interpreting the specification comprises invoking the method of the object
- [c22] A distributed system, comprising:  
a client component;  
a server component having at least one object at runtime; and  
a service layer between the client and the server component, the service layer having a capability to interpret a specification of usage of the object at runtime.
- [c23] The distributed system of claim 22, wherein the service layer further has a capability of interpret a specification of logic executions in the server component at runtime.
- [c24] A distributed system, comprising:  
a service means for providing application-independent services and for interpreting a usage specification and a logic execution specification;  
a client component that sends the usage specification and a logic execution specification to the service means; and  
a server component that interacts with the service means in order to provide services to the client component.

- [c25] An apparatus for distributed collaborating components, comprising:
- means for restricting direct interaction between distributed collaborating components by introducing an application-independent interface between distributed collaborating components; and
  - means for invoking a service from the application-independent interface in order to enable interaction between distributed collaborating components.